

Claims

1. A conditional access system comprising a transmitter for transmitting a plurality of control messages relating to a broadcast stream to a receiver, each of
5 said control messages being associated with information relating to a transmission time for control messages that are to be transmitted in the future.
2. A conditional access system according to claim 1, wherein said control messages include the future transmission time information.
- 10 3. A conditional access system according to claim 1 or 2, wherein the transmission time information comprises information relating to the transmission time of the next control message to be transmitted.
- 15 4. A conditional access system according to claim 1 or 2, wherein the transmission time information comprises a schedule of transmission time information for future control messages.
- 20 5. A conditional access system according to claim 1 or 2, wherein the transmission time information comprises information defining the transmission time of the next control message that contains content different from content previously transmitted.
- 25 6. A conditional access system according to any one of the preceding claims, wherein said control messages are intended for a specified address and the future transmission time information comprises information as to when future messages are to be sent to the specified address.
- 30 7. A conditional access system according to claim 6, wherein the specified address comprises an address of a smart card, a predetermined group of smart cards or all smart cards.

8. A conditional access system according to any one of the preceding claims, wherein the control messages comprise entitlement management messages.
9. A conditional access system according to any one of the preceding claims,
5 wherein the control messages comprise entitlement control messages.
10. A conditional access system according to any one of the preceding claims, wherein the transmitter is also configured to transmit the broadcast stream.
- 10 11. A conditional access system according to any one of claims 1 to 9, wherein the transmitter for transmitting the control messages comprises a first transmitter and the system further comprises a second transmitter for transmitting the broadcast stream.
- 15 12. A conditional access system according to claim 11, wherein the control messages sent from the first transmitter comprise entitlement management messages.
13. A conditional access system according to claim 12, wherein the broadcast
20 stream includes entitlement control messages.
14. A conditional access system according to any one of the preceding claims, wherein the transmission time information further comprises information defining transmission parameters for the control messages.
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15. A conditional access system according to claim 14, wherein the transmission parameters include information on the bearers, or on the networks or on the operators providing the control messages.
- 30 16. A receiver for use in a conditional access system comprising:
an input module for receiving a plurality of control messages relating to broadcast content, each of said control messages being associated with time

information relating to a transmission time for control messages which are to be transmitted to the receiver in the future; and

means for selectively activating the receiver to receive the future control messages at the transmission time.

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17. A receiver according to claim 16, wherein the selective activation means include a processor module for extracting said transmission time information from said control messages.

10 18. A receiver according to claim 16 or 17, wherein the selective activation means include a controller for setting a power-up time for the receiver based on said transmission time information.

15 19. A receiver according to claim 18, wherein the controller is configured to set the power up time to take account of delays in powering up the receiver.

20. A receiver according to claim 18 or 19, wherein the controller is configured to monitor the power-up time and to turn on the receiver when the power-up time is reached.

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21. A receiver according to any one of claims 16 to 20, comprising a mobile receiver.

22. A mobile receiver according to claim 21, operable in accordance with the
25 Digital Video Broadcasting DVB-H specification.

23. A receiver according to any one of claims 16 to 22, configured to request the transmission time information independently of the control messages.

30 24. A method for use in a conditional access system, in which a receiver is operable to receive a plurality of control messages that are associated with transmission time information relating to a transmission time of future control

messages, the method comprising selectively activating the receiver to receive the future control messages at the transmission time.

25. A method according to claim 24, further comprising incorporating said time
5 information into each of the control messages.

26. A conditional access system, comprising:
a transmitter for transmitting a plurality of control messages, each of the
messages including information relating to a predetermined transmission time for
10 future control messages;
a receiver for receiving the control messages; and
means for selectively activating the receiver to receive the future control
messages at the predetermined time.

15 27. A mobile transceiver for use in a conditional access system, the mobile
transceiver being configured to request transmission time information for
conditional access messages to be transmitted in the future, the transceiver further
being configured to receive the transmission time information and to use the
information to set a time for turning on a receiver to receive the messages at a time
20 that substantially coincides with the future conditional access message transmission
time.

28. A mobile transceiver according to claim 27, wherein the conditional access
messages comprise entitlement management messages.

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29. A mobile transceiver according to claim 27 or 28, wherein the transmission
time information is sent in a messaging service format.

30. A mobile transceiver according to claim 29, wherein the messaging service
30 format comprises SMS or MMS.

31. A method of operating a mobile transceiver in a conditional access system,
the mobile transceiver being configured to request transmission time information

for conditional access messages to be transmitted in the future, the transceiver further being configured to receive the transmission time information, the method comprising turning on a receiver to receive the messages at a time that substantially coincides with the future conditional access message transmission time.

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32. A subscription authorisation system for use in a conditional access system to provide a plurality of control messages to a receiver, the control messages relating to a service provided to the receiver by a service provider, each of said control messages being associated with information relating to a transmission time for
10 control messages that are to be transmitted in the future.

33. A subscription authorisation system according to claim 32, in which the control messages are provided by the service provider.

15 34. A subscription authorisation system according to claim 33, in which the control messages are provided from the service provider to a transmitter for onward transmission to the receiver.

35. A conditional access system substantially as hereinbefore described with
20 reference to the accompanying drawings.